

J-HOOK VANE:

Description

This work consists of the construction and maintenance of physical barriers placed in and along the stream at locations designated on the plans to reduce water velocity and direct the stream flow (thalweg) away from the streambank.

The quantity of j-hook vanes to be installed will be affected by the actual conditions that occur during the construction of the project. The quantity of j-hook vanes may be increased, decreased, or eliminated entirely as directed. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

Materials

Refer to Division 10

Item	Section
Boulder	1042 and SP for Structure Stone
No. 57 Stone	1005
Riprap, Class A	1042-1
Filter Fabric for Drainage, Type 2	1056

Boulders shall be used as header and footer rocks for this device.

Construction Methods

J-hook vanes shall be constructed according to the J-hook Vane Detail shown in the plans or as directed. A vane each approximately 1/3 of the stream channel's bankfull width will form a 20°– 30° angle out from the streambank toward upstream. The top elevation of the vane will decrease from bankfull elevation toward the center of the channel at a slope of 4 to 20 percent. The end of the vane will form a hook with gaps between the header rocks and no gaps between the footer rocks. Install header and footer rocks according to detail and plate the upstream side with Type 2 filter fabric and No. 57 stone. Voids between the header and footer rocks can be filled with hand-placed Class A stone as directed. Footer rocks shall be placed such that the header rock is at streambed elevation. The j-hook vane shall be keyed into the bank at the downstream end as shown on the J-hook Vane Detail.

Measurement and Payment

Boulders will be measured and paid for as provided elsewhere in this contract.

No. 57 Stone will be measured and paid for as provided elsewhere in this contract.

Riprap, Class __ will be measured and paid for in accordance with Article 876-4 of the *Standard Specifications*.

Filter Fabric for Drainage will be measured and paid for in accordance with Article 876-4 of the *Standard Specifications*.

Such price and payment will be full compensation for all work covered by this section, including, but not limited to furnishing all materials, labor, equipment, and incidentals necessary to construct the j-hook vanes.